

REMARKS

Claims 1-17 are pending in this application.

By this Amendment, claim 8 is amended, and claim 17 is added. (See the specification at, for example, paragraph [0017].)

The Examiner is respectfully requested to contact the undersigned at the telephone number set forth below to set up a personal interview before issuing a new Office Action.

The Examiner is respectfully requested to acknowledge consideration of the references listed in, and return initialed copies of, Forms PTO-1449 of the June 8 and 24, 2005 Information Disclosure Statements. For the Examiner's convenience, copies of the June 8 and 24, 2005 Forms PTO-1449 are enclosed herein.

The Office Action rejects claims 1-12 and 14-16 under 35 U.S.C. §103(a) over SU 1346977/SU3984301A ("SU") in view of U.S. Patent No. 5,038,996 to Wilcox et al. ("Wilcox"). This rejection is respectfully traversed.

Claim 1 recites "inter-diffusion coefficient." Claim 8 is amended to clarify that the inter-diffusion coefficient is a measure of mutual diffusion of said conductive melts into each other. New claim 17 is added to recite measuring an inter-diffusion coefficient between said conductive solid materials by determining a degree of mutual diffusion of said conductive melts into each other after cooling and solidifying said conductive melts. SU and Wilcox do not disclose or suggest the subject matter recited in claims 1, 8 and 17.

As discussed during the personal interview, the feature of "inter-diffuse" and "mutual diffusion of said conductive melts into each other" is described in the specification at, for example, paragraph [0017]. SU and Wilcox do not disclose or suggest such a feature. Thus, SU and Wilcox do not disclose or suggest the subject matter recited in claims 1, 8 and 17.

Accordingly, Applicants respectfully submit that independent claims 1, 8 and 17 are patentable over SU and Wilcox. Claims 2-7 and 9-16 depend from independent claims 1 and

8, respectively, and are likewise patentable over the applied references at least in view of their dependency, as well as for the additional features they recite. Accordingly, withdrawal of the rejection of claims 1-12 and 14-16 is respectfully requested.

The Office Action further rejects claim 13 under 35 U.S.C. §103(a) over SU in view of Wilcox and further in view of U.S. Patent No. 5,304,972 to Sato. This rejection is respectfully traversed.

Applicants respectfully submit that Sato does not disclose or suggest mutual diffusion of conductive melts into each other. Thus, Sato does not supply the subject matter lacking in SU and Wilcox.

Therefore, Applicants respectfully submit that the combination of SU, Wilcox and Sato fails to disclose, teach or suggest all the features recited in claim 8. Accordingly, claim 8 is patentable over SU, Wilcox and Sato, and claim 13 is likewise patentable over the applied references at least in view of its dependence on claim 8, as well as for additional features it recites. Withdrawal of the rejection of claim 13 is respectfully requested.

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of claims 1-17 are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,



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Attachments:

Petition for Extension of Time
Request for Continued Examination
June 8, 2005 Form PTO-1449
June 24, 2005 Form PTO-1449

Date: October 17, 2005

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